



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/922,995

08/03/2001

Alan Rubinstein

3COM-3653.BCG.US.P

8546

7590

06/10/2005

WAGNER, MURABITO & HAO LLP

Third Floor

Two North Market Street

San Jose, CA 95113

EXAMINER

HO, CHUONG T

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/922,995

Applicant(s)

RUBINSTEIN ET AL.

Examiner

CHUONG T. HO

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2664

1. The amendment filed 01/19/05 have been entered and made of record.
2. Applicant's arguments filed 01/19/05 have been fully considered but they are not persuasive.

In page 9, lines 3-6, Applicant alleged that "Rumbaugh in combination with Weiss does not show or suggest the claimed limitations of "one or more powered, intelligent, multiplexing devices is configured to receive an add-on device selected from the group consisting of intelligent remote testing devices and security devices".

The Applicant's argument is not persuasive.

Rumbaugh (U.S. Patent No. 6,275,144 B1) discloses the claimed limitation of "one or more powered, intelligent, multiplexing devices is configured to receive an add-on device selected from the group consisting of security devices" (see figure 3, one or more powered, intelligent, multiplexing devices (router 113) is configured to receive an add-on device selected from the group consisting of security devices (alarm/security).

Weiss discloses the claimed limitations of "one or more powered, intelligent, multiplexing devices (switching device 114) is configured to receive an add-on device selected from the group consisting of intelligent remote testing devices (16)" (see col. 2, lines 36-37, such a detection mechanism can only test an attached device for the electrical compatibility with the network); Clearly, Rumbaugh in combination with Weiss show or suggest the claimed limitations of "one or more powered, intelligent, multiplexing devices is configured to receive

Art Unit: 2664

an add-on device selected from the group consisting of intelligent remote testing devices and security devices”

3. Claims 1-25 are pending.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rumbaugh (U.S. Patent No. 6,275,144 B1) in view of Weiss et al. (U.S. Patent No. 6,496,103 B1).

In the claim 1, see figure 3, Rumbaugh discloses a network server 130 can be connected at any point on the power-line network using one of the interfaces or ports on the network hub 114. Network server may be used to perform Internet related operations, including receiving a protocol, such as IP, and directing and/or forwarding it to the correct address or standard hub configuration, a main memory, an input/output (I/O) device, a data storage device, a processor, etc. Transceiver 121, and I/O interface 122 included in network hub 114 may also provide protocol conversion when necessary (see col. 6, lines 50-60); comprising:

Art Unit: 2664

See figure 3, one or more work centers (Router 113), each comprising work center devices (PDA, CATV/CCTV/HDTV, VIDEO, SATELLITE DISH, STEREO 7 SPEAKER, LASER PRINTER);

See figure 3, one or more powered, multiplexing devices (Router 113, Router 115, 117, 118, 119, 120 ) located at one or more of work centers, powered, multiplexing devices (Router 113, 115, 117, 118, 119, 120) communicatively coupled with work center devices (PDA, CATV/CCTV/HDTV, VIDEO, SATELLITE DISH, STEREO 7 SPEAKER, LASER PRINTER) via cabling (power-line) (see figure 3, col. 6, lines 30-35, Transceiver 121 uses such techniques as Manchester Encoding and PLL (Phase Lock Loop) to transmit and recover clock/timing. Channelization may be provided using TDM (Time Division Multiplexing) with a minimum of 2 and maximum of 256. Transmission of information will be accomplished by channels of asynchronous, isochronous and synchronous transmission) (see col. 5, lines 65-67, col. 6, lines 1-24);

Wherein one or more powered, intelligent, multiplexing devices (Router 113, 115, 117, 118, 119, 120) is configured to receive an add-on device selected from the group consisting of security devices (alarm/security, see figure 3);

One or more network servers (Network Server 130, Tower Box), each connected with one or more powered, multiplexing devices (Router 113, 114, 115, 116, 117, 118, 119, 120), each connection via a single line (power-line), wherein signals between work center devices (PDA, CATV/CCTV/HDTV, VIDEO, SATELLITE DISH, STEREO 7 SPEAKER, LASER PRINTER) and network servers are

Art Unit: 2664

multiplexed in cabling and single cable (see col. 6, lines 50-60, lines 1-24, col. 5, lines 65-67).

However, Rumbaugh is silent to disclosing one or more intelligent, multiplexing devices.

Weiss et al. discloses the flexibility and functionality of such telephony system, network telephony system connect a network telephonic device to a server over a packet-switched network such as an IP (Internet Protocol) network, such that these telephony system may be termed "IP telephony system". These telephonic devices can receive data through such a network and other telephonic functions through network (see col. 1, lines 20-24) (see col. 2, lines 1-5, Such multiplexing techniques are known in the art, and are used for example for regular (analog) telephony system attached to the PSTN(public switched telephony network), where power and voice signals are carried on a single pair of wires); comprising:

One or more powered, intelligent, multiplexing devices (switching device 14, the term "switching device" includes, but is not limited to, a hub, a switch, a router, a repeater or any device having a network processor, see col. 4, lines 23-25) located at one or more work centers, said powered, intelligent, multiplexing devices (switching devices 14) coupled with work center devices (network devices 16) and single cable (power-line 18) (see figure 1, col. 3, lines 25-40, col. 4, lines 23-25, col. 5, lines 18-23, col. 6, lines 25-30, lines 50-55);

Wherein one or more powered, intelligent, multiplexing devices (14) is configured to receive an add-on device selected from the group consisting of intelligent

Art Unit: 2664

remote testing device (see col. 2, lines 36-37, such a detection mechanism can only test an attached device for the electrical compatibility with the network).

Both Rumbaugh and Weiss discloses the powered line network. Weiss reconizes one or more intelligent, multiplexing devices. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Rumbaugh with the teaching of Weiss to provide powered, intelligent, multiplexing devices in order to prevent of damage to the network device from the transmission of power and the provision of security for attaching only authorized devices to the network.

6. In the claim 9, see figure 3, Rumbaugh discloses a network server 130 can be connected at any point on the power-line network using one of the interfaces or ports on the network hub 114. Network server may be used to perform Internet related operations, including receiving a protocol, such as IP, and directing and/or forwarding it to the correct address or standard hub configuration, a main memory, an input/output (I/O) device, a data storage device, a processor, etc. Transceiver 121, and I/O interface 122 included in network hub 114 may also provide protocol conversion when necessary (see col. 6, lines 50-60); comprising:

See figure 3, one or more work centers (Routers 113, 114, 115, 116, 117, 118, 119, 120), each comprising work center devices (PDA, CATV/CCTV/HDTV, VIDEO, SATELLITE DISH, STEREO 7 SPEAKER, LASER PRINTER);

See figure 3, one or more powered, multiplexing devices (Routers 113, 114, 115, 116, 117, 118, 119, 120) located at one or more of work centers, powered,

Art Unit: 2664

multiplexing devices (Routers 113, 114, 115, 116, 117, 118, 119, 120) communicatively coupled with work center devices (PDA, CATV/CCTV/HDTV, VIDEO, SATELLITE DISH, STEREO 7 SPEAKER, LASER PRINTER) via cabling (power-line) (see figure 3, col. 6, lines 30-35, Transceiver 121 uses such techniques as Manchester Encoding and PLL (Phase Lock Loop) to transmit and recover clock/timing. Channelization may be provided using TDM (Time Division Multiplexing) with a minimum of 2 and maximum of 256. Transmission of information will be accomplished by channels of asynchronous, isochronous and synchronous transmission) (see col. 5, lines 65-67, col. 6, lines 1-24);

Wherein one or more powered, intelligent, multiplexing devices (Router 113, 115, 117, 118, 119, 120) is configured to receive an add-on device selected from the group consisting of security devices (alarm/security, see figure 3);

One or more network servers (Network Server 130, Tower Box), each connected with one or more powered, multiplexing devices (Routers 113, 114, 115, 116, 117, 118, 119, 120), each connection via a single line (power-line), wherein signals between work center devices (PDA, CATV/CCTV/HDTV, VIDEO, SATELLITE DISH, STEREO 7 SPEAKER, LASER PRINTER) and network servers are multiplexed in cabling and single cable (see col. 6, lines 50-60, lines 1-24, col. 5, lines 65-67).

However, Rumbaugh is silent to disclosing one or more intelligent, multiplexing devices.

Weiss et al. discloses the flexibility and functionality of such telephony system, network telephony system connect a network telephonic device to a



Art Unit: 2664

server over a packet-switched network such as an IP (Internet Protocol) network, such that these telephony system may be termed "IP telephony system". These telephonic devices can receive data through such a network and other telephonic functions through network (see col. 1, lines 20-24) (see col. 2, lines 1-5, Such multiplexing techniques are known in the art, and are used for example for regular (analog) telephony system attached to the PSTN(public switched telephony network), where power and voice signals are carried on a single pair of wires); comprising:

One or more powered, intelligent, multiplexing devices (switching device 14) located at one or more work centers, said powered, intelligent, multiplexing devices (switching devices 14) coupled with work center devices (network devices 16) and single cable (power-line 18) (see figure 1, col. 3, lines 25-40, col. 4, lines 23-25, col. 5, lines 18-23, col. 6, lines 25-30, lines 50-55);

Wherein one or more powered, intelligent, multiplexing devices (14) is configured to receive an add-on device selected from the group consisting of intelligent remote testing device (see col. 2, lines 36-37, such a detection mechanism can only test an attached device for the electrical compatibility with the network).

Both Rumbaugh and Weiss discloses the powered line network. Weiss recognizes one or more intelligent, multiplexing devices. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Rumbaugh with the teaching of Weiss to provide powered, intelligent, multiplexing devices in order to prevent of damage to the network device from

Art Unit: 2664

the transmission of power and the provision of security for attaching only authorized devices to the network.

7. In the claims 15, 24, 25, see figure 3, Rumbaugh discloses a network server 130 can be connected at any point on the power-line network using one of the interfaces or ports on the network hub 114. Network server may be used to perform Internet related operations, including receiving a protocol, such as IP, and directing and/or forwarding it to the correct address or standard hub configuration, a main memory, an input/output (I/O) device, a data storage device, a processor, etc. Transceiver 121, and I/O interface 122 included in network hub 114 may also provide protocol conversion when necessary (see col. 6, lines 50-60); comprising:

See figure 3, one or more work centers (routers 113, 114-120), each comprising work center devices (PDA, CATV/CCTV/HDTV, VIDEO, SATELLITE DISH, STEREO 7 SPEAKER, LASER PRINTER);

See figure 3, one or more powered, multiplexing devices (routers 113-120) located at one or more of work centers, powered, multiplexing devices (routers 113-120) communicatively coupled with work center devices (PDA, CATV/CCTV/HDTV, VIDEO, SATELLITE DISH, STEREO 7 SPEAKER, LASER PRINTER) via cabling (power-line) (see figure 3, col. 6, lines 30-35, Transceiver 121 uses such techniques as Manchester Encoding and PLL (Phase Lock Loop) to transmit and recover clock/timing. Channelization may be provided using TDM (Time Division Multiplexing) with a minimum of 2 and maximum of 256.

Transmission of information will be accomplished by channels of asynchronous,

Art Unit: 2664

isochronous and synchronous transmission) (see col. 5, lines 65-67, col. 6, lines 1-24);

Wherein one or more powered, intelligent, multiplexing devices (Router 113, 115, 117, 118, 119, 120) is configured to receive an add-on device selected from the group consisting of security devices (alarm/security, see figure 3);

One or more network servers (Network Server 130, Tower Box), each connected with one or more powered, multiplexing devices (routers 113-120), each connection via a single line (power-line), wherein signals between work center devices (PDA, CATV/CCTV/HDTV, VIDEO, SATELLITE DISH, STEREO 7 SPEAKER, LASER PRINTER) and network servers are multiplexed in cabling and single cable (see col. 6, lines 50-60, lines 1-24, col. 5, lines 65-67).

However, Rumbaugh is silent to disclosing one or more intelligent, multiplexing devices.

Weiss et al. discloses the flexibility and functionality of such telephony system, network telephony system connect a network telephonic device to a server over a packet-switched network such as an IP (Internet Protocol) network, such that these telephony system may be termed "IP telephony system". These telephonic devices can receive data through such a network and other telephonic functions through network (see col. 1, lines 20-24) (see col. 2, lines 1-5, Such multiplexing techniques are known in the art, and are used for example for regular (analog) telephony system attached to the PSTN(public switched telephony network), where power and voice signals are carried on a single pair of wires); comprising:

Art Unit: 2664

One or more powered, intelligent, multiplexing devices (switching device 14) located at one or more work centers, said powered, intelligent, multiplexing devices (switching devices 14) coupled with work center devices (network devices 16) and single cable (power-line 18) (see figure 1, col. 3, lines 25-40, col. 4, lines 23-25, col. 5, lines 18-23, col. 6, lines 25-30, lines 50-55);

Monitoring the status of the infrastructure of network (see figure 2, processor 36 and/or controller 38 continue to monitor power consumption by the network device (not shown), such that as soon as power is no longer being drawn, controller 38 stops providing power to that particular device, and processor 36 restarts the interrogation process);

Wherein one or more powered, intelligent, multiplexing devices (14) is configured to receive an add-on device selected from the group consisting of intelligent remote testing device (see col. 2, lines 36-37, such a detection mechanism can only test an attached device for the electrical compatibility with the network).

Both Rumbaugh and Weiss discloses the powered line network. Weiss reconizes one or more intelligent, multiplexing devices. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Rumbaugh with the teaching of Weiss to provide powered, intelligent, multiplexing devices in order to prevent of damage to the network device from the transmission of power and the provision of security for attaching only authorized devices to the network.

Art Unit: 2664

8. In the claim 2, Rumbaugh discloses powered, intelligent, multiplexing devices are fixed located at work center (see figure 3, col. 5, lines 55-67, col. 6, lines 1-23).

9. In the claims 3, 18, Weiss discloses work center devices comprise computers (see figure 1, network devices 16).

10. In the claims 4, 19, Weiss discloses work center devices comprise computer peripheral devices (see figure 1, network devices 16).

11. In the claims 5, 20, Rumbaugh discloses work center devices comprises voice telephone (see figure 3, col. 5, lines 55-67).

12. In the claim 6, Rumbaugh discloses power, intellegent, multiplexing devices are enabled to be coupled wirelessly to work center devices (see col. 2, lines 26-30).

13. In the claim 7, Rumbaugh discloses cabling is fiber-optic cabling (see figure 3, col. 2; lines 22-45).

14. In the claim 8, Weiss discloses cabling is wire cabling (see col. 2, lines 3-4).

15. In the claims 10, 17, Weiss discloses electronically coupling two or more of network devices to network is accomplished with modular cable connectors (see figure 1, col. 3, lines 66-67, col. 4, lines 1-20).

16. In the claims 11, 16, Rumbaugh discloses powered, intelligent, multiplexing device connector is fixedly located at network center (see figure 3, col. 6, lines 25-60).

Art Unit: 2664

17. In the claims 12, 23, Weiss discloses multiplexing signals is accomplished in part by powered, intelligent, multiplexing device connector at work center (see col. 6, lines 25-28).

18. In the claims 13, 21, Weiss discloses multiplexing signals comprises multiplexing device data signals (see col. 6, lines 25-28).

19. In the claims 14, 22, Weiss discloses multiplexing signals comprises multiplexing device power (see col. 6, lines 25-28).

### ***Conclusion***

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong Ho whose telephone number is (703) 306-4529. The examiner can normally be reached on 8:00AM to 4:00PM.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chuong Ho  
Examiner

Art Unit: 2664

Art Unit 2664

06/1/05

A handwritten signature in black ink, appearing to read 'Wellington Chin', with a long horizontal flourish extending to the right.

**WELLINGTON CHIN**  
**PERMISSORY PATENT EXAMINER**